



Addressing Fatigue in MS

Kristi Anglin Epstein APRN CNP CCRN

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The Ohio State University Department of Neurology
Division of Neuroimmunology



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WEXNER MEDICAL CENTER

Defining Fatigue

There are many types of fatigue that can affect patients with CNS demyelinating diseases such as MS, NMO and MOGAD

Motor Fatigue- exertional decline in ability to exert force, or heat related symptoms (Uhthoff). Muscle tiredness.

Compensating for limb weakness, poor balance , and issues like foot drop causes working harder to get through the day.

Cooling cloths/ vests, Ampyra, assistive devices, reconditioning

Lassitude- overwhelming fatigue, may be due in part to inflammatory cytokines. Independent of activity or level of disability.

Diet, exercise , supplements, good sleep



Constitutional/ Secondary Fatigue- depression, illness, poor sleep, sleep disorders such as sleep apnea, poorly controlled co-morbidities, symptoms such as spasticity and urinary dysfunction

Exercise, sleep, diet, supplements, Amantadine, Modafinil

Impact on Quality of life

Your fatigue is real, often misunderstood by friends, family and co-workers

Leading cause of vocational disability

Complicated relationship to mood disorders like depression

Necessary medications can contribute to fatigue

NMSS reports up to 80% of MS patients experience fatigue



Supplements/ Diet

Mitochondrial support- power stations in our cells that convert nutrients into energy. Mitochondrial dysfunction seen in many chronic diseases and is directly related to excess fatigue

Diet as adjunct to standard DMT

Limit processed foods. Limit added sugar and sodium. Limit saturated fats

Anti-inflammatory , Mediterranean

Consider intermittent fasting

L Carnitine

B12

Co Enzyme Q 10

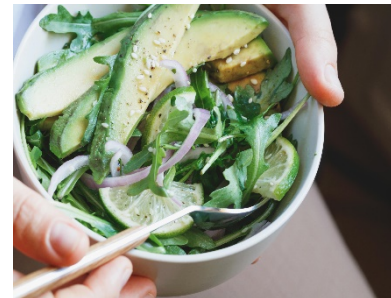
Vitamin C

Alpha Lipoic Acid

Riboflavin

Vitamin D

Discuss all supplements with your provider



Behavioral Changes

Energy Conservation

Exercise

Circadian Rhythm adherence

Yoga

Aqua therapy

Mindfulness

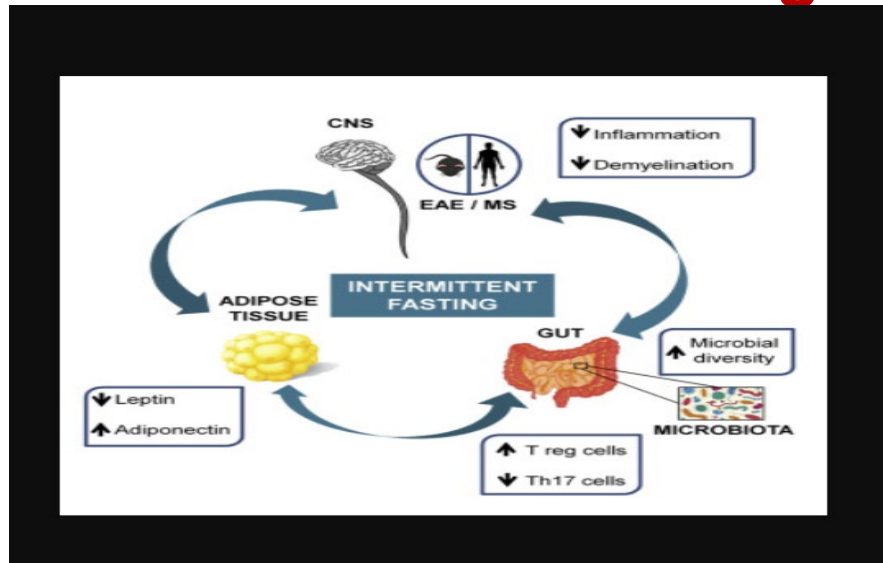
Fit Bit/Tracker

Counseling/Talk Therapy

Cognitive behavioral therapy



Intermittent Fasting and Gut Microbiome



**Reported at
Actrims 2021
‘Weight, Obesity
and
Adipokines’
Laura Picco MD
PhD**

Types Of Intermittent Fasting

The 5:2 fasting

The 5:2 fasting method allows you to eat normally for five days and then restrict your calorie intake to 500-600 calories on the other two days.

16:8

You should hold off from any food for 16 hours and eat during the remaining 8 hours of the day. When following this method of fasting, you have to consume lots of high-protein foods and eat carbohydrates on rotation.

12-hour fast

Good option for beginners. A 12-hour fast means that you eat within the first 12 hours of the day and abstain from food for the next 12 hours.

Fasting on alternate days

As the title suggests, this plan allows you to fast every second day.

OMAD

You should fast from breakfast to breakfast, from lunch to lunch, or from dinner to dinner – whichever you prefer. You can have one meal during that time to tide you over and use it to take medications that must be taken with food.

Random meal skipping

You can skip meals randomly once or twice a week. It basically helps you to reduce your calorie intake. If you had a really heavy lunch, you might want to let your body rest and skip dinner, or at least, have a light one.

The Warrior Diet

It allows you to eat small portions of certain food types at dinner. During that dinner period, you should also work out. At the end of the day, you would have a feeding window.

DO FASTING

WAVES randomized clinical trial (2021) looking at impact of dietary interventions on Fatigue and QOL

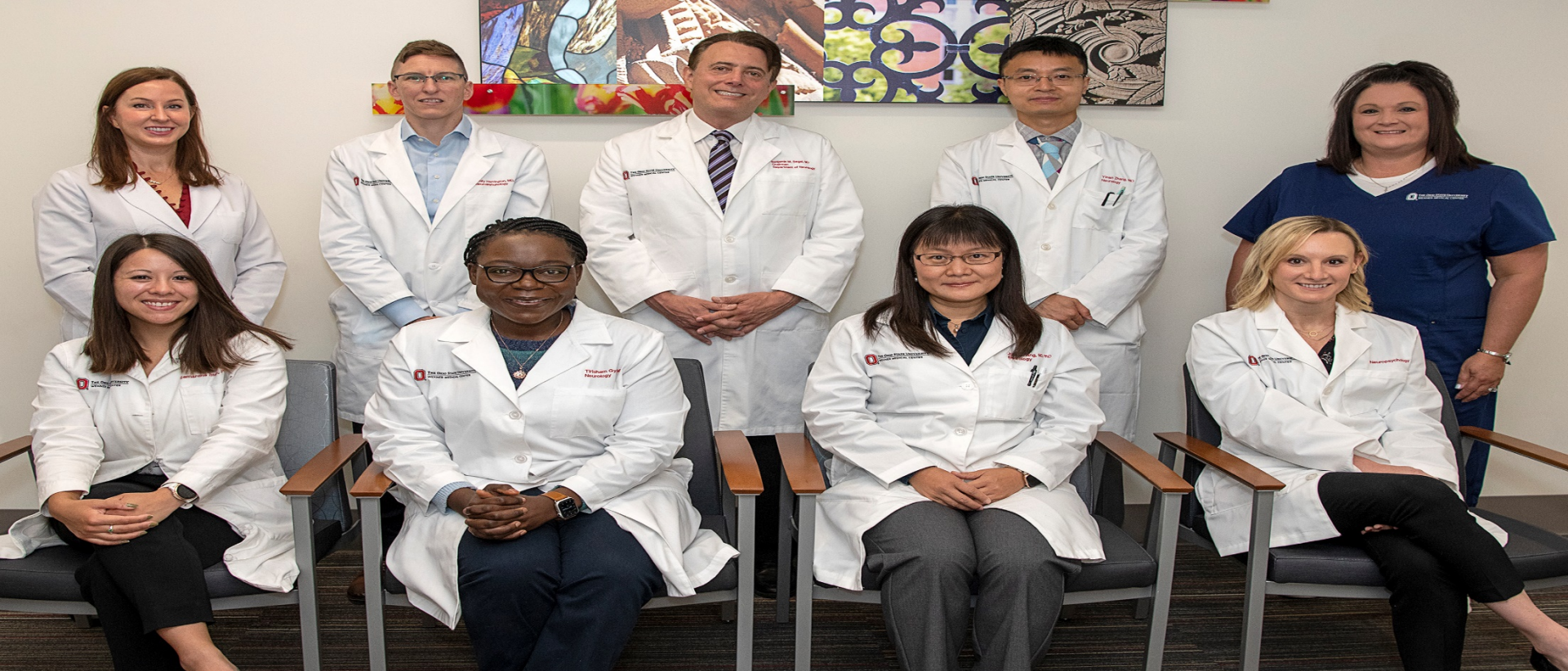
Fatigue is one of the most common and debilitating symptoms reported in MS,² and is associated with increased disability and reduced quality of life (QoL).³

Pharmacological treatment options for MS-related fatigue have limited efficacy⁴; thus, many individuals with MS seek non-pharmacologic therapies to reduce their fatigue burden.

Despite a lack of consistent evidence for any specific therapeutic diet for MS,⁵ surveys observe that half of individuals with MS report implementing dietary modifications.⁶

⁷ Due to the lack of evidence demonstrating diet intervention-related reduced disease activity⁵ and the limited role of the neurologist in providing dietary recommendations,⁸ people newly diagnosed with MS receive little dietary advice⁹ which forces this information to be sought from internet sources that are often not evidence-based.¹

The findings from this trial confirm those of preliminary trials that the Wahls and Swank diets are associated with significant reductions in fatigue and improvements in QoL among RRMS participants.



Clinical Care Team

Working together to achieve Quality of Life

References;

List of articles reviewed

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For full screen images

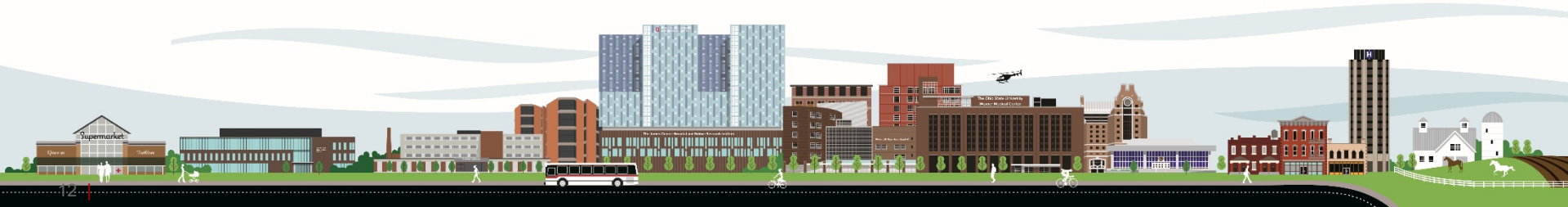


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Thank You



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